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Serial No. 10/585,890
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AMENDMENTS TO THE CLAIMS:

The following listing of claims supersedes all prior versions and listings of claims in this application:

1. (Currently Amended) A sensor device comprising:
means for periodically generating a measured value of a property;
means for determining the rate of change in the measured property;
means for determining the values of the property being measured by ~~similar~~
devices similar to said sensor device; and
means for adjusting the periodicity of measurement according to ~~these~~the values
the sensor has measured and the measured values received from the devices similar to
said sensor device.

2. (Previously Presented) A sensor device according to claim 1, further
comprising:
means for increasing the frequency with which measurements are taken when
the property being measured is changing.

3. (Previously Presented) A sensor device according to claim 2, further
comprising:

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means for calculating the standard deviation of a predetermined number of preceding readings.

4. (Currently Amended) A sensor device according to claim 1, wherein:
the means for determining the values being measured by the similar devices similar to said sensor device determines the values being measured by spatially neighboring devices, and

the means for adjusting controls the device to reduce the frequency at which measurements are taken if neighboring devices are obtaining the same values for the measurements.

5. (Currently Amended) A sensor device according to claim 4, wherein the means for determining comprises a transmitter to broadcast the measurements being taken by the device and a receiver to receive such broadcasts from ~~similar~~ the devices similar to said sensor device.

6. (Previously Presented) A sensor device according to claim 5, wherein said means for determining comprises means for exchanging data with neighboring devices for the purpose of relaying it to a data collection point, the data generated by the device or received from others being stored in a buffer until it can be transmitted.

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7. (Previously Presented) A sensor device according to claim 5, the means for adjusting the periodicity of measurement being responsive to the level of such traffic being handled by the device.

8. (Previously Presented) A sensor device according to claim 6, ~~having~~ further comprising:

means for determining the level of data traffic being carried by one or more neighboring devices,

means for comparing the traffic levels carried by the neighboring devices with traffic it is itself carrying,

means for transmitting control data to other devices if it is carrying less traffic than the other devices, and

means for receiving such control data from devices identified as carrying less traffic than it is,

the control data having the effect of adjusting the times at which the measurements are taken by the device receiving the control data.

9. (Original) A sensor device according to claim 8, wherein the control data generated by the transmitting device controls the receiving device to reduce its data measurement rate.

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10. (Currently Amended) A method of operating a plurality of sensor devices, said method comprising:

periodically measuring a property at each of plural sensor devices,
determining the rate of change at each device in the measured property,
~~determining~~ transmitting the values of the property being measured by each
device from each device to one or more other devices, and
adjusting the periodicity of measurement of each device according to the~~these~~
values it has measured and the values it has received from the one or more other
devices.

11. (Original) A method according to claim 10, wherein the frequency with which measurements are taken is increased when the property being measured is changing.

12. (Original) A method according to claim 11, wherein the change in the property being measured is determined by calculation of the standard deviation of a predetermined number of preceding readings.

13. (Previously Presented) A method according to claim 10, wherein a group of neighboring devices exchange measurement data, and reduce the frequency at which measurements are taken if they are obtaining the same values for the measurements.

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14. (Previously Presented) A method according to claim 13, wherein neighboring devices exchange data for the purpose of relaying it to a data collection point.

15. (Original) A method according to claim 14, the periodicity of measurement being responsive to the level of such traffic being handled by the device.

16. (Previously Presented) A method according to claim 13, wherein:
each device determines the level of data traffic being carried by one or more neighboring devices, identifies the device that is carrying the least traffic, and puts itself under the control of that device, and

a device that determines that it is carrying less such traffic than any of its neighbors assumes control of the data sensing rate for itself and those neighbors, and transmits control data to the said other devices.

17. (Original) A method according to claim 16, wherein the controlling device determines the measurements being made by all the devices under its control, and transmits control data to cause them to reduce their data measurement rates if those measurements are substantially the same.

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18. (Previously Presented) A method according to claim 16, wherein the controlling device causes the devices under its control to stagger the times at which they take measurements.

19. (New) A sensor device according to claim 1, wherein each of the sensor device and the devices similar to said sensor device is a mobile device.

20. (New) A method according to claim 10, wherein each of the plurality of sensor devices is a mobile device.